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**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA
AND THE CALIFORNIA ENERGY COMMISSION**

Order Instituting Rulemaking to Implement the Commission's Procurement Incentive Framework and to Examine the Integration of Greenhouse Gas Emissions Standards into Procurement Policies	R.06-04-009
AB 32 Implementation	07-OIIP-01

**COMMENTS OF THE
ENERGY PRODUCERS AND USERS COALITION
AND THE
COGENERATION ASSOCIATION OF CALIFORNIA
ON TYPE AND POINT OF REGULATION ISSUES**

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The Energy Producers and Users Coalition¹ and the Cogeneration Association of California² (jointly, EPUC/CAC) submit the following comments on type and point of regulation issues pursuant to the November 9, 2007 Administrative Law Judge's Ruling (Ruling).

I. OVERVIEW AND SUMMARY OF RECOMMENDATIONS

The Ruling requests comment on four referenced regulatory approaches: load-

¹ EPUC is an ad hoc group representing the electric end use and customer generation interests of the following companies: Aera Energy LLC, BP West Coast Products LLC, Chevron U.S.A. Inc., ConocoPhillips Company, ExxonMobil Power and Gas Services Inc., Shell Oil Products US, THUMS Long Beach Company, Occidental Elk Hills, Inc., and Valero Refining Company – California

² CAC represents the power generation, power marketing and cogeneration operation interests of the following entities: Coalinga Cogeneration Company, Mid-Set Cogeneration Company, Kern River Cogeneration Company, Sycamore Cogeneration Company, Sargent Canyon Cogeneration Company, Salinas River Cogeneration Company, Midway Sunset Cogeneration Company and Watson Cogeneration Company.

based (LB), first seller (FS), source/load-based (Hybrid), and pure source-based (PS).

Among these alternatives, a Hybrid approach, which regulates in-state resources at the stack and imports at the retail provider level, is superior. The Hybrid:

- Best aligns the incentives to reduce emissions with the source of those emissions;
- Allows for greater accuracy in the tracking of emissions, increasing the likelihood that California can reach its target by 2020;
- Facilitates seamless integration with other greenhouse gas (GHG) programs (e.g., European Union - Emissions Trading Scheme (EU-ETS) and Regional Greenhouse Gas Initiative (RGGI)), by providing a source-based foundation and an interim method to address imports that can be easily “unzipped” from the program as regulation broadens throughout the region;
- Offers administrative simplicity; and
- Can overcome legal challenge.

These benefits of the Hybrid are discussed below.

The Ruling also asks parties to consider the effects of delaying implementation of a cap-and-trade program pending the development of broader regional or national programs. A cap-and-trade program presents the highest potential for cost-effective GHG emissions reductions to meet AB 32 goals. The success of the cap-and-trade program will turn, in large part, on the program’s scope, and electricity sector emissions represent a significant percentage of the future GHG market. Thus, any cap-and-trade program implemented in California must include electricity sector emissions. If regulators nonetheless delay cap-and-trade implementation pending broader regional or federal programs, interim measures for the electricity sector should be confined to leveraging existing programmatic measures. As explained below, four measures -- energy efficiency, renewables, solar energy and combined heat and power (CHP) -- can

significantly reduce emissions in the electricity sector and further the state's goal of meeting its 2020 emissions target.

II. THE HYBRID APPROACH IS SUPERIOR TO ALTERNATIVE REGULATORY APPROACHES

A pure source-based (PS) model, regulating at the generator level, presents the most ideal model for GHG regulation in the electricity sector. This solution cannot be immediately implemented, however, because California law requires regulators to address emissions from both in-state sources and imports.³ Since California cannot directly regulate out-of-state generation emissions, a PS program will not fulfill AB 32 mandates. Instead, the most reasonable approach to maximize source-based coverage is a Hybrid model, regulating in-state generation at the source and imports at the retail provider level. As explained below, the Hybrid is superior to other alternatives on policy, practical, and legal grounds.

AB 32 objectives require a regulatory approach that will properly align incentives, ensure accurate tracking of emissions, include imports, ensure reductions in emissions, and minimize contract leakage and shuffling. A Hybrid can achieve these objectives.

A. The Hybrid Approach Is the Most Direct Form of Regulation, Aligning Incentives for Emissions Reductions with Emissions Sources.

Experience with emissions trading lies solely in pure source-based models; the European Union- Emissions EU-ETS, RGGI, Clean Air Interstate Rule and other criteria pollutant programs all address emissions at the stack. The use of this approach is not accidental, but reflects a common understanding that source-based regulation targets the issue most directly. Under a source-based model, the emitter bears the direct consequences of its emissions and the rewards for emissions reductions.

³ See responses to Q8 and Q13.

Among the models presented in the Ruling, the Hybrid maximizes source-based regulation by placing the point of regulation on the stack for in-state resources yet still captures the emissions of generation imports. Since California's energy consumption from in-state resources totals around 75-80%, the majority of *sources*⁴ would be covered by direct regulation of the source. In-state sources (including LSE-owned sources) would report their emissions to CARB and be required to cover their emissions by the end of a compliance period.

Other models under consideration tackle emissions less directly. The FS approach targets emissions at the transaction level – the point of first sale into California. The LB approach moves the regulation even further from the source, placing it at the LSE portfolio.

While the Hybrid accomplishes direct regulation most effectively, there admittedly is no way to reach a source-based approach for imports due to jurisdictional concerns.⁵ Consequently, a suboptimal approach for addressing imports will be used under any model. The Hybrid would assign emissions associated with imports to LSEs based on purchases in the same way proposed under the LB method.⁶ The LSE would report its emissions attributable to imports, and would be held to cover those emissions with allowances by the end of the compliance period.

⁴ Admittedly, 75-80% of the MWh today equals only about half of the emissions associated with California consumption, making imports an important matter. See MAC Report, at 19-20. Imports will be difficult to address regardless of approach due primarily to the practice of unspecified source purchases. Nonetheless, for purposes of program administration, the question should be the number of sources that can be reached directly through regulation.

⁵ See responses to Q8 and Q13.

⁶ A load-based approach to imports is not critical to the model. The Hybrid could also combine a source-based in-state system with other approaches for imports, including a FS approach, or a First Buyer approach (as proposed by Salt River Project). From a legal standpoint, however, it could be argued that the LB treatment of imports may present a lower risk of legal challenge under the Dormant Commerce Clause and the Federal Power Act.

B. The Hybrid Approach Will Allow for Accurate Counting of Emissions.

Unlike the FS and LB approaches, the Hybrid model ensures accuracy by focusing on the direct source of emissions for about 75-80% of the sources serving California. Annual stack emissions will be easy to measure and verify – there is no need to track the emissions to or through sales transactions or LSE portfolios once they leave their source. Moreover, these emissions data are readily available for most in-state generators. The Clean Air Act already requires most in-state sources to report their carbon dioxide emissions.⁷

Although some have argued that the FS approach yields a similar result, conceptually it does not.⁸ The FS approach attaches compliance responsibility to the first sale of a kWh, thus requiring regulators to track emissions associated with individual sale transactions. Failure to include a transaction or an incorrect inclusion can drastically affect compliance and verifying emissions can require examining several individual sale transactions. There is a greater likelihood of failure and inaccuracy in accounting for emissions through thousands of transactions rather than through fixed, identifiable stacks.

Under a LB approach, regulators will need to scrutinize complex procurement portfolios and track emissions for 100% of the kWh sold from a generator's stack to an LSE. Power may be traded numerous times before reaching a LSE, thus increasing the administrative burden of tracking. Several emission tracking and verification proposals

⁷ MAC Report, at 29 (“Currently, all medium-and large-sized electric generating units in California already report CO₂ emissions to EPA under Title IV of the Clean Air Act; in addition large point sources are likely to be included in CARB’s mandatory reporting program.”).

⁸ If, in fact, the First Seller approach is meant to regulate in-state stacks, the proposal is really a hybrid, with source-based regulation of in-state resources and first-sale regulation of imports.

are being considered to address this shortcoming of the LB approach.

In short, neither the FS nor the LB approaches provide the degree of accuracy available in the Hybrid.

C. The Hybrid Will Best Link with Other Source-Based Systems.

The ability of the adopted approach to link with other regional, national and international programs is an important attribute. Easy linkage will reduce the administrative burden of changing regulations over time; this will also provide greater certainty to market participants thereby encouraging investment. Finally, to reduce leakage and contract shuffling, regulators should adopt an expansion-friendly model.⁹

Experience suggests that a regional and/or federal program is likely to be source-based. The only implemented GHG program – the EU-ETS – regulates directly at the source. RGGI is also a source-based program. Finally, other criteria pollutant trading schemes, including the federal Title IV SO₂ Acid Rain program, the NO_x State Implementation Plans and the soon-to-be implemented Clean Air Interstate Rule, all involve direct, source-based regulation.

The Hybrid will dovetail easily with source-based regional and federal programs. Once regional/federal programs are established, the import regulations could be “unzipped” from California’s program. Removing import regulations will leave a clean, source-based system that can link with other source-based systems without modification or additional regulations.

⁹

The MAC Report observes that linkage with other regional GHG programs is required to eliminate the leakage problem. Similarly, contract shuffling issues result where regulation does not address all potential sources of emissions. The adopted EPS is a good first step toward reducing leakage and contract shuffling but only for long-term import contracts. Inclusion of imports into California’s AB 32 regulatory scheme is important to mitigate the potential for short-term leakage and shuffling.

D. The Hybrid Offers Administrative Simplicity.

The Hybrid offers the most administrative simplicity when compared to its alternatives. Both the LB and FS models increase complexity, heightening both administrative burden and the potential for error.

A LB approach presents complication on several fronts. With the market share of LSEs changing over time, accurate and equitable allocation of allowances will present a challenge. In addition, under this approach 100% of the power consumed in California – not simply imports – must be tracked from the generation source to an LSE's portfolio. With the potential for a MWh to flow through many transactions before finally reaching the LSE portfolio, the tracking obligation (and potential for error) is significant.

The FS likewise presents greater complexity than the Hybrid. While a single MWh would not have to be tracked through multiple transactions, the FS approach requires regulators to verify emissions by reviewing individual sale transactions. With trading periods as short as 15 minutes, the number of transactions to track could be daunting. This is much more administratively burdensome than looking at the total emissions from a single stack for the compliance period and, again, presents a more material risk of error.

E. The Hybrid Approach Can Overcome Legal Challenge.

Since the Hybrid considers the emissions associated with imports, it can be challenged under the Dormant Commerce Clause (DCC). As discussed below and in the comments on the MAC Report, however, challenges made to the Hybrid can be overcome. Moreover, unlike the FS approach, the Hybrid presents little basis for a claim of federal preemption under the Federal Power Act (FPA).

1. The Hybrid Does Not Result in Differential Treatment That Falls Within the Scope of Discrimination As Defined Under DCC Jurisprudence.

The DCC focuses on differential treatment that favors in-state economic interests and burdens out-of-state interests.¹⁰ The Hybrid treats out-of-state sources differently from in-state sources but, importantly, it does not *disadvantage* the out-of-state sources. In fact, out-of-state sources will bear no compliance obligation under the source/load-based hybrid. Where differential treatment does not result in favoring in-state sources and burdening out-of-state interests, it does not constitute discrimination as defined in DCC jurisprudence.¹¹ For that reason, a DCC challenge could easily be overcome.

2. The Hybrid Can Overcome a FPA Challenge Because It Does Not Regulate Wholesale Transactions.

The FPA provides FERC with the exclusive authority to regulate wholesale transactions.¹² The potential for a preemption challenge under the FPA is slim under the Hybrid approach because it does not directly regulate or impact wholesale transactions. As discussed in the Reply Comments on the MAC Report, great weight is placed on the focus of regulations which may impact wholesale transactions.¹³ Cases demonstrate that FPA preemption is likely only when (i) a state regulation is “unmistakably and unambiguously” directed to regulate transactions that are within Congress’ jurisdiction or (ii) a state regulation stands as an obstacle to the execution of

¹⁰ *Oregon Waste Systems, Inc. v. Department of Environmental Quality of Oregon*, 511 U.S. 93, 99 (1994).

¹¹ *Id.*

¹² 16 U.S.C. §824(b); *Nantahala Power and Light Co. v. Thornburg*, 476 U.S. 953, at 956 (1986).

¹³ EPUC/CAC Reply Comments on MAC Report, at 4-8.

Congressional objectives.¹⁴ While it might be argued that the Hybrid could still have some impact on wholesale transactions, any impacts would be an *indirect* result of regulations promulgated under the state's police powers. Moreover, unlike the FS approach, any impact under the Hybrid approach would not result from the regulation of wholesale transactions. In light of the state's interest in promoting the health and safety of its citizens, a challenge under the FPA would be difficult to sustain.

III. ENCOURAGING FOUR EXISTING PROGRAMS CAN PROVIDE EMISSIONS REDUCTIONS NEEDED TO ACHIEVE 2020 EMISSIONS TARGETS PENDING FURTHER REVIEW OF GHG REGULATORY DESIGN

The Ruling explores the merits of delaying implementation of a cap-and-trade program to allow coordination with regional and/or federal efforts. A cap-and-trade program offers the most potential to reduce emissions at least cost. Any adopted cap-and-trade program must include the electricity sector emissions which comprise a significant percentage of total emissions. If regulators, however, decide to delay implementation of direct regulations, California's goal to reduce emissions can still be achieved. As discussed below, interim measures for the electricity sector could be confined to increasing support for existing programs to allow the state to realize significant emissions reductions.

¹⁴ *Northwest Central Pipeline Corp. v. State Corp. Comm'n of Kansas*, 489 U.S. 493, at 511-515 (1989); *Transcontinental Gas Pipeline Corp. v. State Oil and Gas Bd. of Mississippi*, 474 U.S. 409, 422 (1985); *Northern Natural Gas Co. v. State Corp. Comm'n of Kansas*, 372 U.S. 84, 92 (1963). See also EPUC/CAC Reply Comments on MAC Report, at 4-8.

A. A Cap-and-Trade Program Including the Electricity Sector Is Required to Facilitate the Objectives of AB 32.

Adoption of a cap-and-trade program will ensure that emission reductions can take place at the least cost. Consideration of compliance costs is consistent with AB 32 which expressly requires regulators to consider the cost of reducing emissions:

It is the intent of the Legislature that the State Air Resources Board design emissions reduction measures to meet the statewide emissions limits for greenhouse gases established pursuant to this division in a manner that minimizes costs and maximizes benefits for California's economy, improves and modernizes California's energy infrastructure and maintains electric system reliability, maximizes additional environmental and economic co-benefits for California, and complements the state's efforts to improve air quality.¹⁵

As explained in the MAC Report, a cap-and-trade program allows the market to make cost effective decisions about how to comply with emission-reduction programs.¹⁶

Moreover, as long as regulators lower the permitted emissions from year to year, reductions will occur.¹⁷ Finally and most importantly, a cap-and-trade program provides continuing incentives to market participants to identify and invest in emission-lowering tools.¹⁸

The success of a cap-and-trade program depends on the inclusion of electricity sector emissions. Electricity sector emissions are associated with about 24% of the targeted emissions reductions.¹⁹ Including this sector, therefore, is necessary to facilitate the material reductions required of AB 32.

¹⁵ Cal. Health & Safety Code § 38501.

¹⁶ MAC Report, at 7.

¹⁷ MAC Report, at 7.

¹⁸ MAC Report, at 7.

¹⁹ MAC Report, at 19.

B. Expansion of Key Programs Can Significantly Further the State's Ability to Reach 2020 Target.

If regulators delay cap-and-trade implementation pending the development of regional/federal efforts, California can achieve significant emissions reductions if efforts are limited to expanding key programs. In particular, heavy reliance on CHP, solar, other renewable resources and energy efficiency can together deliver an additional annual savings of roughly 40 MMTCO₂e/year for investor-owned utilities:

Energy efficiency:	15 MMTCO ₂ Annual Savings ²⁰
California Solar Initiative	3 MMTCO ₂ Annual Savings ²¹
Renewables:	11 MMTCO ₂ Annual Savings ²²
Combined Heat & Power:	9-11 MMTCO ₂ Annual Savings ²³

The MAC Report indicates that 24% of the target annual emissions of 174 MMTCO₂e/year, or 41.76 MMTCO₂e/year can be attributed to electricity use.²⁴ The savings from the four programs above represent roughly 22% of the total 2020 target reductions.²⁵ Enhancing the use of these programs by publicly owned utilities, as well, would magnify the benefit of these programs. Consequently, without a cap-and-trade program, the electricity sector could achieve reductions proportionately equivalent to the

²⁰ Climate Action Team Report (April 2006), at 17.

²¹ Climate Action Team Report (April 2006), at 59-60.

²² This is the amount of emissions reductions that can be achieved for renewable energy generation if the RPS is increased from 20% to 33%. Climate Action Team Report (April 2006), at 59-60.

²³ These emissions savings can be achieved under the high deployment scenario discussed in the CEC's report entitled Assessment of California CHP Market and Policy Options for Increased Penetration, dated July 2005. See also Economic and Technology Advancements for California Climate Solutions, Discussion Draft (Nov. 15, 2007) at 4-9.

²⁴ MAC Report, at 19.

²⁵ See CARB Early Action Report, at 2.

sector's 24% share of statewide GHG emissions.²⁶

While vibrant RPS, solar, and energy efficiency programs are already on course, further development of the state's CHP policy would be required to maximize potential reductions. To ensure that California can realize emissions reductions from CHP, a strongly supportive policy framework with the following features is needed:

- Portfolio set-aside for CHP power purchases by the utilities, similar to the RPS;
- Reasonable pricing provisions for power purchases from CHP facilities;
- Removal of deployment barriers, including eliminating departing load charges;
- Regulatory incentives for utilities to procure from CHP resources; and
- Direct financial incentives for small-scale CHP.

In other words, limited regulatory changes alone will allow California to realize significant emission reductions.

IV. ANSWERS TO SPECIFIC QUESTIONS

3.1. General

Q1. What do you view as the incremental benefits of a market-based system for GHG compliance, in the current California context?

A cap and trade program will allow California to reach emissions targets at a lower cost than command and control regulations.²⁷

The MAC Report observes that, due to informational barriers, a cap-and-trade program is necessary to allow the market to achieve emissions targets at least cost. It explains that since regulators do not know the exact cost to each facility of reducing emissions, emissions limits for each facility cannot be set at the level that ensures the target is achieved at least cost. It notes that a *“cap-and-trade program overcomes this information problem by letting the market generate the cost-minimizing configuration of emissions levels across facilities.”*²⁸ It explains that where it is more expensive for facilities to reduce emissions than purchase allowances, it will purchase allowances. Those facilities with lower emissions will purchase fewer allowances and sell any excess. In this way, a cap-and-trade program provides *“continuing incentives to identify low-cost reduction*

²⁶ MAC Report, at 19.

²⁷ MAC Report, at 7.

²⁸ MAC Report, at 7.

*opportunities.*²⁹ The MAC Report also observes that the cost savings quantified in the SO₂ trading program “amounted to 43-55 percent of expected compliance costs under an alternative regulatory program that imposed a uniform emission standard.” In short, compliance costs can be reduced if a cap-and-trade program is implemented. Given AB 32’s directive to “*minimize costs and maximize benefits for California’s economy,*” regulators seeking to implement direct regulations should not ignore the attributes of this regulatory feature.³⁰

Q2. *Can a market-based system provide additional emissions reductions beyond existing policies and/or programs? If so, at what level? How much of such additional emission reductions could be achieved through expansion of existing policies and/or programs?*

Yes. As explained in response to Q1, a market-based system, including the electricity sector, has the potential to drive significant emissions reductions because it provides “*continuing incentives to identify low-cost reduction opportunities.*”³¹ Not all low-cost reduction opportunities will be driven by existing programs. For example, there is no program that provides an incentive for repowering existing generation. Nor is there an existing program that might drive development of after-market reduction technologies for existing generation. Yet under a source-based cap-and-trade program, a source achieving reductions would be rewarded directly.

That said, as detailed in Section III, if regulators delay implementation of a cap-and-trade program pending development of regional and federal programs, they can rely solely on existing programs to achieve meaningful emission reductions. In particular, heavy reliance on CHP, solar, renewable resources, and energy efficiency can together deliver an additional annual savings of roughly 40 MMTCO₂:

Energy efficiency:	15 MMTCO ₂ Annual Savings ³²
California Solar Initiative	3 MMTCO ₂ Annual Savings ³³
Renewables:	11 MMTCO ₂ Annual Savings ³⁴
Combined Heat & Power:	9-11 MMTCO ₂ Annual Savings ³⁵

These savings represent roughly 22% of the total 2020 target reductions of 174

²⁹ MAC Report, at 7.

³⁰ See Cal. Health & Safety Code §38501.

³¹ MAC Report, at 7.

³² Climate Action Team Report (April 2006), at 17

³³ Climate Action Team Report (April 2006), at 59-60

³⁴ Climate Action Team Report, at 59-60.

³⁵ These emissions savings can be achieved under the high deployment scenario discussed in the CEC’s report entitled Assessment of California CHP Market and Policy Options for Increased Penetration, dated July 2005. See also Economic and Technology Advancements for California Climate Solutions, Discussion Draft (Nov. 15, 2007) at 4-9.

MMTCO₂e/year.³⁶ Enhancing the use of these measures for publicly owned utilities, as well, would magnify their benefit. This indicates that these four programs, if expanded, can be a critical tool for regulators in achieving the AB 32 target. The encouragement required to realize these emission reductions is discussed in Section III. Ultimately, it is crucial that the regulatory approach adopted consider and utilize all potential emission-reducing measures.

3.2. Principles or Objectives to be Considered in Evaluating Design Options

Q3. *Do you agree with this set of objectives? Are there other objectives or principles that you wish to see included? If so, please include your recommendations and reasoning. Finally, please rank the objectives above, and any additional factors you propose, in order of importance.*

The ruling identifies the following eight broad objectives to consider in evaluating regulatory approach designs: goal attainment, cost minimization, compatibility with wholesale markets and MRTU, legal risk, environmental integrity, expandability, accuracy and administrative simplicity. As discussed below, additional objectives should be added to the list of factors to be considered. More electricity sector-specific objectives would be appropriate. Ranking is also discussed below.

Do you agree with this set of objectives? Are there other objectives or principles that you wish to see included? If so, please include your recommendations and reasoning.

It would be difficult to disagree with the objectives identified in the Ruling. Two additional points, however, bear consideration. First, the full scope of the goal of “environmental integrity” is not apparent. Presumably, this goal would include giving weight to:

- a. Promoting investment in low-carbon technologies and fuels (including energy efficiency) and
- b. Avoiding perverse incentives that discourage or penalize investments in low-carbon technologies and fuels (including energy efficiency).

Second, regulators should integrate more focused principles for the electricity industry aimed to:

- Ensure a continued and reliable supply of electricity;
- Encourage energy independence and customer participation in efficient supply development through solar and CHP technologies; and
- Maintain the economic health of California’s business.

Any GHG program advanced for the electricity sector should be evaluated against these principles.

³⁶ See CARB Early Action Report, at 2.

Please rank the objectives above, and any additional factors you propose, in order of importance.

At the forefront of regulators' minds should be goal attainment. Goal attainment, in turn, will depend on several identified factors: accuracy of the regulatory approach, inclusion of imports, incentives to reduce emissions, recognition of all emission-reducing technology, minimizing contract leakage and shuffling, ensuring reliability of supplies, and encouraging energy independence and customer participation in efficient supply development through solar and CHP technologies. While it is difficult to rank the remaining objectives, all of which are important, avoiding legal challenge should not be a driving force in the Commission's decision. Each and every model presents some opportunity for challenge and, likewise, solid arguments to counter the challenge.

Q4. With a load-based cap-and-trade system, should exports from in-state generation sources be included and accounted for under the cap? Why or why not? If so, how? For example, exports could be captured in a cap-and-trade system by regulating in-state sources that export, or by counting the emissions associated with exported power, without any compliance obligation on the exporter. There may be other options as well.

AB 32 lacks clarity on the question of whether emissions from exported in-state generation falls within the scope of regulation. It defines "*statewide greenhouse gas emissions*" to include "*total annual emissions of greenhouse gases in the state.*"³⁷ *Generation that exports outside of California nonetheless emits "in the state."* On the other hand, in discussing emissions in the electricity sector more specifically, the statute references "all emissions of greenhouse gases from the generation of electricity **delivered to and consumed in** California." This more explicit reference omits electricity generated but not consumed in California.

Likewise, there are competing policy goals at play. Relieving exports from GHG compliance obligations and costs could create a greater incentive for in-state generation to export to avoid these costs. Alternatively, if exports are included in the regulation and in-state generation seeks to compete in other markets, that generation would face an immediate competitive disadvantage due to the higher cost of production.

For these reasons, the answer to this question is not readily apparent from a legal or policy perspective. On balance, in the interest of supply security, it may be in California's best interest to include power exports from in-state sources within the scope of regulation.

³⁷ Cal. Health & Safety §38550.

- Q5. *How extensive do you view the threat of contract-shuffling under a load-based program, given the accessibility of clean resources within the western interconnect? What mechanisms do you propose to combat this possibility? On what basis do you support your position?*

EPUC/CAC have no view on this issue.

- Q6. *Which of these systems best accounts for all imports? What are the advantages and disadvantages of each potential tracking system in terms of accuracy, cost of development and administration of tracking systems, costs of administration to the parties, and overall costs to ratepayers? Are there alternative tracking approaches that you would recommend, and for what reasons?*

As the MAC discovered in reviewing these two alternatives, it is impossible to design a problem-free model. The design difficulty stems from the AB 32 mandate that the GHG program address not only in-state generation sources, but imports of electricity as well. The prevailing wisdom is that without addressing imports, the effectiveness of California's ability to produce real emissions reductions is arguably threatened by leakage. California must be mindful of this need to address imports, but recognize that the challenge of addressing imports arises in any model. Moreover, the challenge of addressing imports will disappear once regulators establish national or regional efforts.

The issue must be put into perspective. Observers note that while imports are roughly 20-25% of the state's consumption, they account for about half of GHG emissions.³⁸ While this fact underscores the importance of including imports in the program, the driving factor for program administration is not the tons of emissions but the number of transactions or MWh from imports. By employing a Hybrid approach, roughly 75-80% of MWh are captured in a source-based approach, leaving only a quarter of the transactions or MWh at issue in this question.

Using an LB approach to address imports may give California greater leverage in discovering and addressing imported emissions. The CPUC has direct jurisdiction over power procurement contracts executed by the utilities, including imported power. Any long-term contracts thus can be conditioned to require disclosure of the emissions rate for purposes of regulation; this is no different than the current EPS regulation, which requires any long-term commitment to be reviewed to ensure it meets the standard. The Commission could likewise place incentives on imports to disclose their sources and emissions by attributing a high emissions rate to the LSE if no specific emissions rate is provided.

- Q7. *If a load-based approach is pursued, would the potential benefits of a full TEAC system be great enough to warrant the start-up and administrative costs?*

³⁸ MAC Report, at 19-20.

EPUC/CAC have no view on this issue.

3.4. Source-based Cap-and-trade System Design Options

3.4.1. Pure Source-based (GHG Regulation of In-state Generation Only)

Q8. *Do you view this approach as compliant with Assembly Bill (AB) 32? Please support your answer.*

A PS regulatory approach will not satisfy the AB 32 mandate which requires including import emissions into its statewide cap. AB 32 requires CARB to adopt a statewide emissions cap:

By January 1, 2008, the state board shall, after one or more public workshops, with public notice, and an opportunity for all interested parties to comment, determine what the statewide greenhouse gas emissions level was in 1990, and approve in a public hearing, a statewide greenhouse gas emissions limit that is equivalent to that level, to be achieved by 2020.³⁹

The statute clarifies that emissions associated with imports will be accounted for when “statewide greenhouse gas emissions” are calculated:

“Statewide greenhouse gas emissions” means the total annual emissions of greenhouse gases in the state, including all emissions of greenhouse gases from the generation of electricity delivered to and consumed in California, accounting for transmission and distribution line losses, whether the electricity is generated in state or imported. Statewide emissions shall be expressed in tons of carbon dioxide equivalents.⁴⁰

For this reason, despite the difficulty of integrating imports into California’s GHG regulatory regime, a PS approach that regulates only in-state sources will be inconsistent with AB 32.⁴¹ It is worth noting, however, that the manner in which imports are integrated into the overall AB 32 program is not prescribed.

Q9. *In light of the relatively high capacity factors of carbon-intensive facilities outside the state, how extensive do you expect the short-term threat of substituting higher-carbon imports for in-state generation to be? Might this possibility be*

³⁹ Cal. Health & Safety §38550.

⁴⁰ Cal. Health & Safety §38505(m) (emphasis added).

⁴¹ See also MAC Report, at 42 (“The Committee considered and rejected a pure generator-based approach in which emissions from California generators are capped but emissions associated with out-of-state generation are not. Such an approach would not deal with leakage and would be inconsistent with the Global Warming Solution Act, which aims to reduce emissions associated with the state’s consumption (not just generation) of electricity.”)

dealt with through specific program design (e.g., allocations, limiting conditions, etc.)?

EPUC/CAC have no view on this issue.

Q10. Given existing procurement oversight and the prospect for a regional or federal GHG program in the foreseeable future, how extensive do you expect the threat to be of a longer-term shift of production to regions beyond the reach of a California source-based cap-and-trade regime?

California has, and has always had, the tools to counter any threat of shift of power production out-of-state: **ensuring that incentives are aligned and regulatory certainty is provided to encourage the continued operation and development of efficient generation within California.** Encouraging developers and the utilities to maximize renewable and solar resources in state, and capitalizing on CHP expansion potential, will deter a shift of production to other regions. The Commission also has the potential to invite in-state generation through balanced procurement policies, which do not favor utility generation.

Q11. If emissions associated with imported power are excluded from a cap-and-trade program, what policies beyond the existing suite of program including energy efficiency, California Solar Initiative, RPS, and Emission Performance Standard (EPS) do you recommend that California employ to achieve the necessary reductions from the electricity sector?

As discussed in Section III, regulators should strongly encourage CHP resources which have the ability to reduce emissions in the amount of 9-11 MMTCO₂e/year.⁴² To ensure that California can realize emissions reductions from CHP, a strongly supportive policy framework with the following features is needed:

- Portfolio set-aside for CHP power purchases by the utilities, similar to the RPS;
- Reasonable pricing provisions for power purchases from CHP facilities;
- Removal of deployment barriers, including eliminating departing load charges;
- Regulatory incentives for utilities to procure from CHP resources; and
- Direct financial incentives for small-scale CHP.

Q12. As the Public Utilities Commission does not currently have authority to oversee all energy efficiency and renewable procurement programs for all kinds of retail providers (investor owned utilities (IOUs), community choice aggregators (CCAs),

⁴² See *supra*, n. 16.

electric service providers (ESPs), and publicly owned utilities (POUs)), which agency(ies) should fill in any gaps? Which agency should be responsible for overseeing energy efficiency and renewable procurement for POUs? Would the California Air Resources Board (ARB) have the authority to require certain energy efficiency and renewable targets be met by POUs?

AB 32 appears to provide CARB with broad authority to achieve the state's reduction targets – an exercise of the state's police powers. It would be reasonable to explore delegation of program development and oversight to the CEC for POUs, CCAs and ESPs.

Q13. What sources would a source-based system cover? Could it cover California utility-owned facilities located outside of California?

What sources would a source-based system cover?

The ability of California to regulate sources of emissions will be limited by the DCC.⁴³ DCC jurisprudence provides that states cannot regulate extraterritorially or directly regulate out-of-state entities. As a result, as explained below, California has only the authority to regulate those transactions which are directed to the state.

The Commerce Clause charges Congress with the authority “[t]o regulate Commerce . . . among the several states.”⁴⁴ The negative aspect of the Commerce Clause, also known as the DCC, limits the ability of States to regulate in a manner that impacts interstate commerce.⁴⁵ In particular, the DCC, prohibits states from directly regulating interstate commerce.⁴⁶ Also, the “Commerce Clause . . . precludes the application of a state statute to commerce that takes place *wholly* outside the State's border, whether or not the commerce has effects within the State.”⁴⁷ States, however, retain the authority to regulate matters of “*legitimate local concern*” as long as the regulations have only an incidental impact on interstate commerce and the burden is clearly not excessive when compared with the putative local benefit.⁴⁸

The DCC does not allow states to regulate an out-of-state entity's ability to do business

⁴³ *United Haulers Association, Inc. v. Oneida-Herkimer Solid Waste Management Auth'y*, 127 S. Ct. 1786 (2007) (“Although the Constitution does not in terms limit the power of States to regulate commerce, we have long interpreted the Commerce Clause as an implicit restraint on state authority, even in the absence of a conflicting federal statute.”)

⁴⁴ *Oregon Waste Systems, Inc. v. Dept. of Environmental Quality of the State of Oregon, et al.*, 511 U.S. 93, 98 (1994).

⁴⁵ *Id.*

⁴⁶ *Stone v. Frontier Airlines, Inc.*, 256 F.Supp.2d 28, 45 (D.Mass. 2002)

⁴⁷ *Id.* (emphasis added)

⁴⁸ *Id.*

with other states.⁴⁹ This type of regulation constitutes extraterritorial regulation which is precluded by the DCC.⁵⁰ As clarified in *Cotto Waxo Company*, “a statute has extraterritorial reach when it necessarily requires out-of-state commerce to be conducted according to in-state terms.”⁵¹

DCC jurisprudence demonstrates that California’s ability to directly regulate out-of-state sources is limited. A PS regulatory scheme that regulates out-of-state entities will not withstand legal challenge because extraterritorial regulation is not permitted. As a result, to take advantage of a source-based regulation scheme, some kind of hybrid regulation scheme will be necessary to incorporate imports.

The DCC does, however, provide limited flexibility for a state to reach beyond its borders to regulate those entities that are in a contractual relationship with in-state entities. Regulating out-of-state entities, in fact, is not considered “*direct regulation*” as long as the regulation is related to a contractual relationship.⁵² The Ninth Circuit case of *Gravquick* is noteworthy on this point. In that case, a California company entered into an international distribution agreement with a Danish company.⁵³ The contract included a choice-of-law provision which provided that California law would govern.⁵⁴ The California company sued the Danish company because the contract did not comply with California law.⁵⁵ The Danish Company argued that the DCC forbade direct regulation of out-of-state entities.⁵⁶ The Ninth Circuit found that the California court was trying to regulate the contractual relationship, not the out-of-state entity.⁵⁷ It noted that application of California law was appropriate because the contracts had sufficient connections with California to support a California choice of law. It also observed that applying California law to a contract that is performed only partially outside of California does not violate the Commerce Clause.⁵⁸ Finally, the Ninth Circuit determined that the incidental burden did not outweigh the putative local benefit in protecting activities taking place in the state and impacting a California corporation.⁵⁹ The Ninth Circuit therefore upheld the application of California law to the transactions related to the contract. This demonstrates that California can apply its law to transactions that impact local interests, potentially import contracts between a California utility and an out-of-state interest.

Could it cover California utility-owned facilities located outside of California?

⁴⁹ *Healy v. Beer Institute, Inc.*, 491 U.S. 324, 336 (1989); *South Dakota Farm Bureau, Inc. v. Hazeltine*, 202 F.Supp.2d 1020, at 1047 (D.S.D. 2002).

⁵⁰ *Id.*

⁵¹ *Cotto Waxo Co. v. Williams*, 46 F.3d 790, 794 (8th Cir. 1995).

⁵² *Gravquick v. Trimble Navigation Internat’l*, 323 F.3d 1219, 1224 (9th Cir. 2003).

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ *Id.*

⁵⁹ *Id.* at 1224-5

As discussed above, California's ability to directly regulate out-of-state entities is limited. It could be argued, however, that California's reach under its GHG regulations could extend to utility-owned assets out of state. The term "*commerce*" is generally understood to require a trade or exchange.⁶⁰ Based on this definition, an argument could be made that the generation and delivery of power from a utility's out-of-state facility to California for later resale to an end-use customer is not the type of "interstate commerce" at issue under the DCC. Even if these matters were considered interstate commerce, regulators can use ratemaking authority over out-of-state assets in much the same way as they could make requirements through contact. They could, for example, require GHG program participation by the assets or, alternatively provide a financial incentive for program participation.

Q14. Would a strengthened EPS assist in reducing emissions due to California imports? What recommended changes would you make to the EPS?

Maintaining the EPS would strengthen emissions reductions efforts under any model. If applied to all LSEs, it would drive all power with emissions above the standard out of the state regardless of the overall balance of emissions in an LSE's portfolio. The EPS would need to be applied with great caution, however, to avoid turning away resources needed to serve California demand.

3.4.2. Deliverer/First Seller

Q15. Please comment on the "First Seller Design Description" paper, which is Attachment A to this ruling. Does the paper accurately describe the deliverer/first seller program? If not, describe your concerns and include an accurate description from your perspective.

The Resero Consulting paper's (Resero Paper) description of the first seller program does not comport with the program described in the MAC Report. First, it fails to clarify that the emissions of in-state generators will be regulated as "first sales" transactions. Second, it does not consistently place the compliance obligation on the entity making the sale of electricity and does not accurately describe the deliverer/first seller program. Even with these inaccuracies, however, the Resero Paper captures the administrative complexity involved in

⁶⁰ *Philadelphia v. New Jersey*, 437 U.S. 617, 622 (1978) ("All objects of interstate trade merit Commerce Clause protection; none is excluded by definition at the outset."); *Fort Gratiot Sanitary Landfill, Inc. v. Michigan Department of Natural Resources*, 504 U.S. 353, 358 (1992) ("Whether the business arrangements between out-of-state generators of waste and the Michigan operator of a waste disposal site are viewed as 'sales' of garbage or 'purchases' of transportation and disposal services, the commercial transactions unquestionably have an interstate character."); Randy E. Barnett, *The Original Meaning of the Commerce Clause*, 68 U.Chi.L.Rev. 101, 111-112 and 146 (2001) ("Commerce" means the trade or exchange of goods (including the means of transporting them); "among the several States" means between persons of one state and another").

the FS approach.

The Resero Paper states the following which fails to accurately reflect the mechanics of a first seller approach:

*Under a First Seller approach, in-state sellers (generators) will be regulated. They will have to acquire allowances for their carbon emissions based on reported fuel consumption and; or direct measurement of emissions.*⁶¹

A first seller approach, conceptually, will track emissions associated with individual sales transactions, whether they arise from in-state or out-of-state resources. The Resero Paper's description of the first seller approach is, in fact, a hybrid using source-based regulation for in-state resources and first seller regulation for imports.

The Resero Paper's description of the points of regulation is also inconsistent with the program proposed in the MAC Report. The MAC Report proposes that the point of regulation would be the party making the first sale of "power into the California market."⁶² In other words, the following entities would be points of regulation:

- For power first sold by an in-state generator for in-state delivery, the generator would effectively be the entity responsible for compliance.
- For power sold by an out-of-state generator within the state to a power marketer or utility, the generator would be the entity responsible for compliance.
- For power generated out-of-state and first sold by a power marketer for resale, the marketer would be the entity responsible for compliance.
- Power generated by an IOU, POU or other LSE and sold for the first time at retail would place responsibility for compliance on that LSE.

Unlike the MAC Report's first seller approach, the Resero Consulting paper does not consistently place the compliance obligation on the entity making the sale of electricity. For example, Resero identifies the following importers as entities that can be regulated:

- *IOUs that import power from out-of-state sources to serve load in California*
- *Municipal entities that import power from out-of-state sources to serve load in California; and*
- *Out-of-state utilities that import power at one location and export it at another (wheel-through) to serve load outside California.*⁶³

Since Resero's approach places the compliance obligation on the in-state entity *importing* power rather than the entity *selling* the power, it is more akin to a first buyer approach with respect to imports. This constitutes a significant deviation from the current understanding of a first seller approach.

⁶¹ Resero Paper, at 4.

⁶² MAC Report at 42.

⁶³ Resero Paper, at 4 (emphasis added).

3.4.3. Source-based for In-state Generation, Load- based for Imports

Q16. Please describe in detail your view of how this option would work.

Under the Hybrid approach, the point of regulation would be the emitting resource for in-state resources and the LSE for imports. Under this approach, an emitting source within California would bear the responsibility to hold sufficient emissions allowances to cover its actual emissions. It could meet its obligation using a variety of flexible compliance mechanisms, including allowance trading in a multi-sector cap-and-trade program. Imported power would not be regulated directly. A purchasing LSE would bear responsibility to acquire allowances – whether from an administrative allocation or auction – to cover emissions from imported power.

The benefits of the source/load-based hybrid are discussed in detail in Section II.

Q17. Do you support such an approach? Why or why not?

Yes. EPUC/CAC support the source/load-based Hybrid for reasons discussed in Section II.

Q18. Does this approach have legal issues associated with it? Provide a detailed analysis and legal citations.

See Section II(E).

Q19. If retail providers are responsible for internalizing the cost of carbon for imported power, all power generated in-state may need to be tracked to load to avoid double regulation of in-state power. Do you agree?

No. Under a source/load-based Hybrid, retail providers would be responsible for tracking emissions associated with their own generation resources and imported power. In-state sources would be responsible for emissions associated with their power. In theory, provided that tracking protocols for imports are sufficiently stringent, in-state power would not require tracking. To ensure that all LSE resources are properly accounted for, however, in-state power could be tagged to demonstrate compliance. Notably, this tag need only provide information about compliance; it would not have to include information about in-state source emissions.

Q20. If that is the case, does a mixed source-based/load-based approach offer any advantages compared to a load-based approach in terms of simplifying reporting

and tracking? What if the load-based system uses TEACs? How could imports be differentiated from in-state generation in a way that reduces the complexity of reporting and tracking compared to a load-based approach?

As explained in response to Q16, in-state generation – which makes up 75-80% of the transactions or MWh that would require monitoring -- does not need to be tracked in the Hybrid approach; the need to track under the Hybrid stops at the stack. In contrast, 100% of the transactions or MWh would require tracking under the load-based approach. A MWh would require tracking through any number of transactions (potentially repackaged several times) before reaching the LSE portfolio, increasing the potential for error.

3.5. Deferral of a Market-based Cap-and-Trade System

Q21. How important is it that a cap-and-trade system be included in the near-term as part of the electricity sector's AB 32 compliance strategy?

A cap-and-trade program including the electricity sector can best facilitate emissions reductions at least cost. If regulators nonetheless decide to delay implementation of a cap-and-trade program, regulators could focus their efforts on expanding four key programs, energy efficiency, demand response, solar and CHP, which can provide material emissions reduction. The potential contribution of these programs is discussed in more detail in Section III.

Q22. Would your answer to Q12 be different if there is no market-based cap-and-trade system? If so, please explain.

EPUC/CAC have no view on this issue.

Q23. Address the following:

- *How emission reduction obligations could be met if there is no cap-and-trade system for the electricity sector,*

Expanding existing programs can alone further the state's efforts to lower emissions. As long as the state promotes energy efficiency, renewable power, solar power and CHP facilities emissions can be reduced at a rate of 40 MMTCO₂e/year.

- *How increased programmatic goals would impact rates, and*

EPUC/CAC have no view on this issue. The Commission should, however, commence an inventory of existing programs to provide a foundation for analyzing this question.

- *How deferral of a cap-and-trade program for the electricity sector would facilitate or hinder California's integration into a subsequent regional or federal program.*

See answer below.

Q24. How deferral of a cap-and-trade program for the electricity sector would facilitate or hinder California's integration into a subsequent regional or federal program.

An argument can be made that California has an opportunity to provide leadership in a regional or federal program if it continues down the road to implementation of AB 32. This leadership could increase the likelihood of broader adoption of California principles, although that broader adoption is certainly not assured. It is not clear, however, that California cannot bring the same influence to bear in regional or national negotiations.

Q25. If neither a regional system nor a national system is implemented within a reasonable timeframe, should California proceed with implementing its own cap-and-trade system for the electricity sector? If so, how long should California wait for other systems to develop before acting alone?

California Health and Safety Code Section 38562 requires the state board to adopt emissions limits by 2011:

On or before January 1, 2011, the state board shall adopt greenhouse gas emission limits and emission reduction measures by regulation to achieve the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions in furtherance of achieving the statewide greenhouse gas.

It does not provide the board discretion to achieve emissions reductions. As a result, if no regional or national system arises in a reasonable time frame, California must take action. A cap-and-trade system is the best option for minimizing compliance costs and allowing flexibility in regulation.

Q26. What flexible compliance mechanisms could be integrated into a non-market based GHG emission reduction approach?

For the electricity sector, compliance mechanisms could include the RPS mandate, energy efficiency targets and CHP portfolio requirements.

Q27. If a market-based cap-and-trade system is not implemented for the electricity sector in 2012, how would you recommend addressing early actions that entities may have undertaken in anticipation of a market?

In the absence of a market-based cap-and-trade system, documentation of early action efforts will be very important. Once a cap-and-trade program is available, early action credit can be made available to those entities who voluntarily reduced emissions that go beyond business as usual efforts as mandated by Health and Safety Code Section 38562(b)(3). To ensure that these entities receive the proper credit, regulators should establish reporting protocols and honor these records when a regulatory approach is ultimately adopted.

3.6. Recommendation and Comparison of Alternatives

Q28. Submit your comprehensive proposal for the approach California should utilize regarding the point of regulation and whether California should implement a cap-and-trade program at this time for the electricity sector. If you recommend that another approach be considered besides those detailed above, propose it here. If you recommend one of the above options, give as detailed a discussion as possible of how the approach would work.

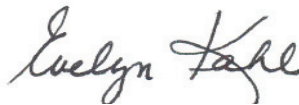
See Sections II and III.

Q29. Address and compare how each of the alternatives identified in the above questions, and the proposal you submit in response to the preceding question, would perform relative to each of the principles or objectives listed above and any other principles or objectives you propose. For each alternative, address important tradeoffs among the principles.

See Sections II and III.

December 3, 2007

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Evelyn Kahl". The signature is fluid and cursive, with the first name "Evelyn" and the last name "Kahl" clearly distinguishable.

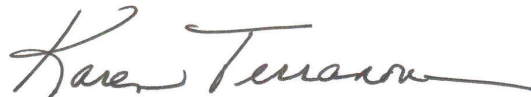
Evelyn Kahl
Michael Alcantar

Counsel to the Energy Producers and Users
Coalition and the Cogeneration Association of
California

CERTIFICATE OF SERVICE

I, Karen Terranova hereby certify that I have on this date caused the attached **Comments of the Energy Producers and Users Coalition and the Cogeneration Association of California on the Type and Point of Regulation Issues** in R06-04-009 to be served to all known parties by either United States mail or electronic mail, to each party named in the official attached service list obtained from the Commission's website, attached hereto, and pursuant to the Commission's Rules of Practice and Procedure.

Dated December 3, 2007 at San Francisco, California.

A handwritten signature in dark ink, appearing to read "Karen Terranova", with a long horizontal flourish extending to the right.

Karen Terranova

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